

The State of SCDOT

January 16, 2013





Overview

- SCDOT's Mission
- SCDOT Management Update
- State Highway System – Condition and Safety
- Financial Resources, Planning for the Future, and System Needs
- Transportation Infrastructure and Economic Development



SCDOT's Mission

Mission (Section 57-1-30, SC Code of Laws)

The department shall have as its functions and purposes the systematic planning, construction, maintenance and operation of the state highway system and the development of a statewide intermodal and freight system that is consistent with the needs and desires of the public.

*SCDOT's core service is to provide a **safe**, properly-maintained road and bridge network supporting citizens, visitors, and commerce.*



SCDOT's Primary Areas of Responsibility

- Preserving the State Highway System and managing construction requirements
- Rail and freight planning
- Assisting public transit authorities with coordination of services, planning of resources, and compliance
- Multimodal planning in partnership w/MPOs and COGs, Commerce, State Ports Authority
- Developing & implementing a Highway Safety Plan in partnership with DPS, DMV and FHWA
- Providing project management support to others undertaking transportation projects



SCDOT Management Update



Finances on Track

Regained solid financial management posture:

- Invoices paid net 30 calendar days or earlier
- All debt service/SCTIB payments on time
- Key personnel changes made
- Successful implementation of SCEIS continues
- Establishment of Program and Resource Analysis Meetings (PRAM)
- Development of a two year forward-looking cash flow model



Reorganization Efforts

- Appointed a Chief of Staff to synchronize and align staff and divisions
- Consolidated all procurement functions under a Chief Procurement Officer
- Realigned finance & administrative operations and established a Support Services Division
- Established Customer Call Center



Reorganization Efforts

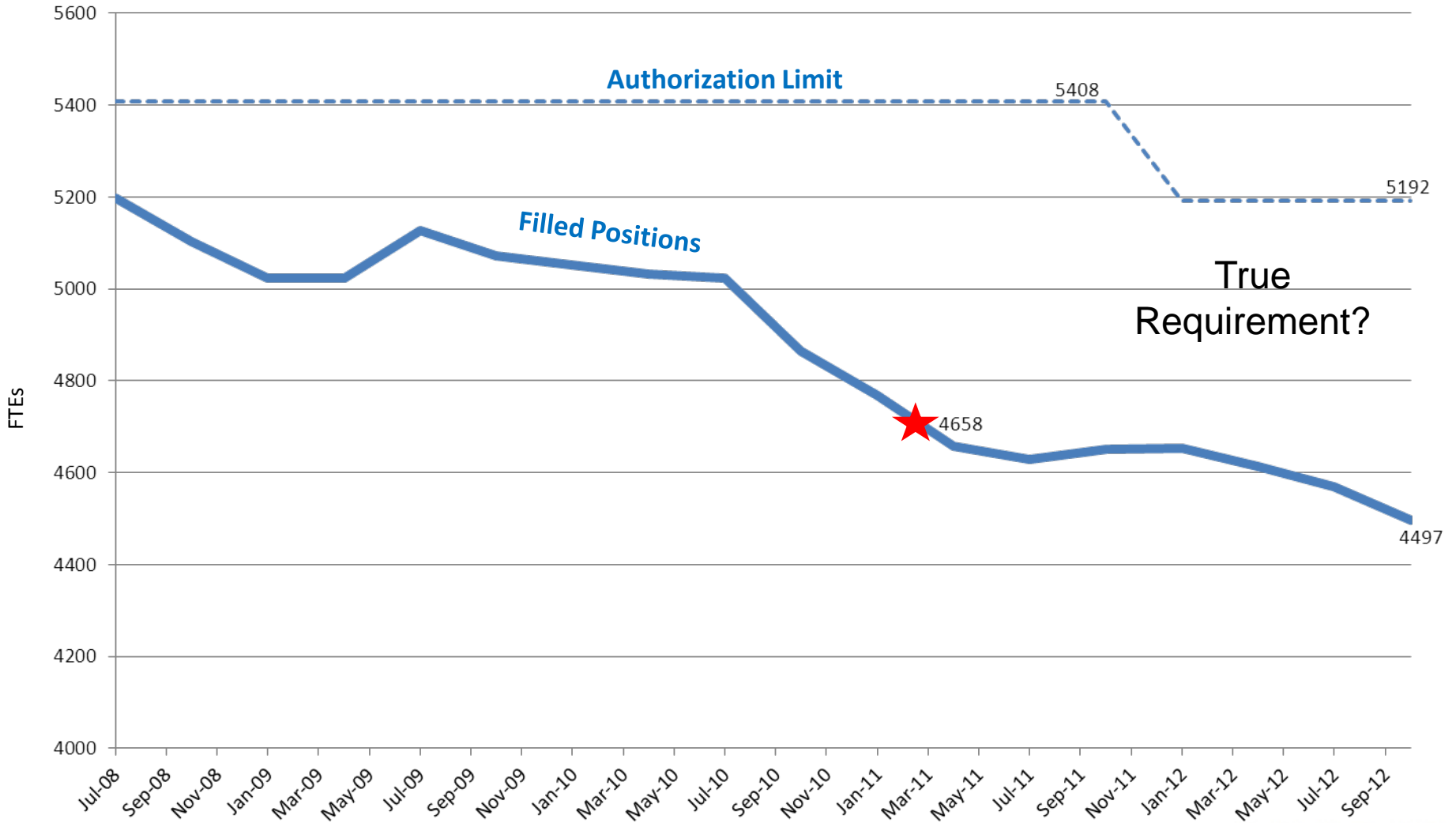
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- Reorganized Office of Human Resources
- Established IT Council to centralize IT functions, vet IT needs of agency, and assess and comply with security requirements
- Established interagency Safety Council to sharpen our focus on safety in the workplace and on the highway system (MAP-21)

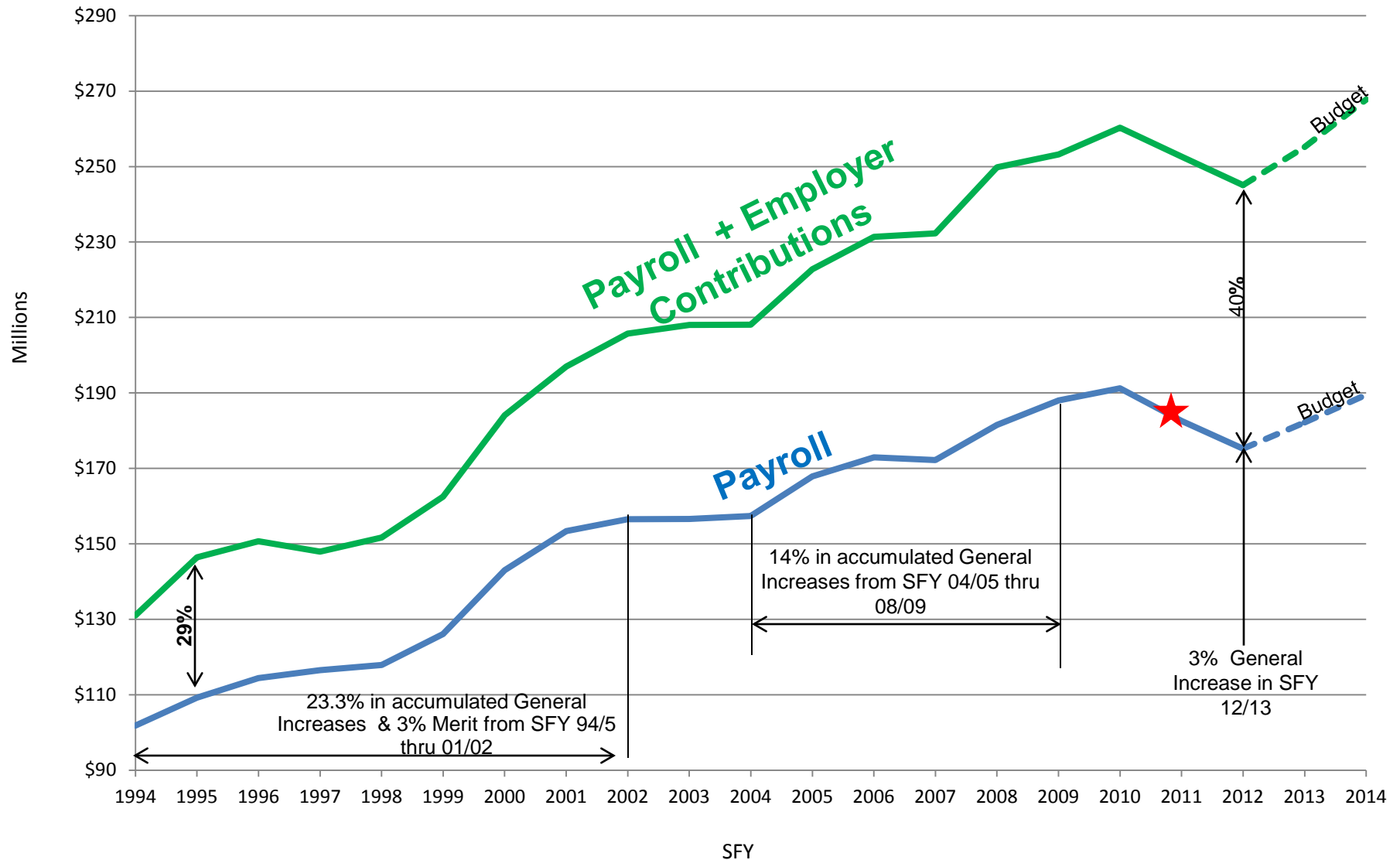




Agency Workforce Trends



Payroll & Employer Contributions Expenditure Trends





Major Management Initiatives

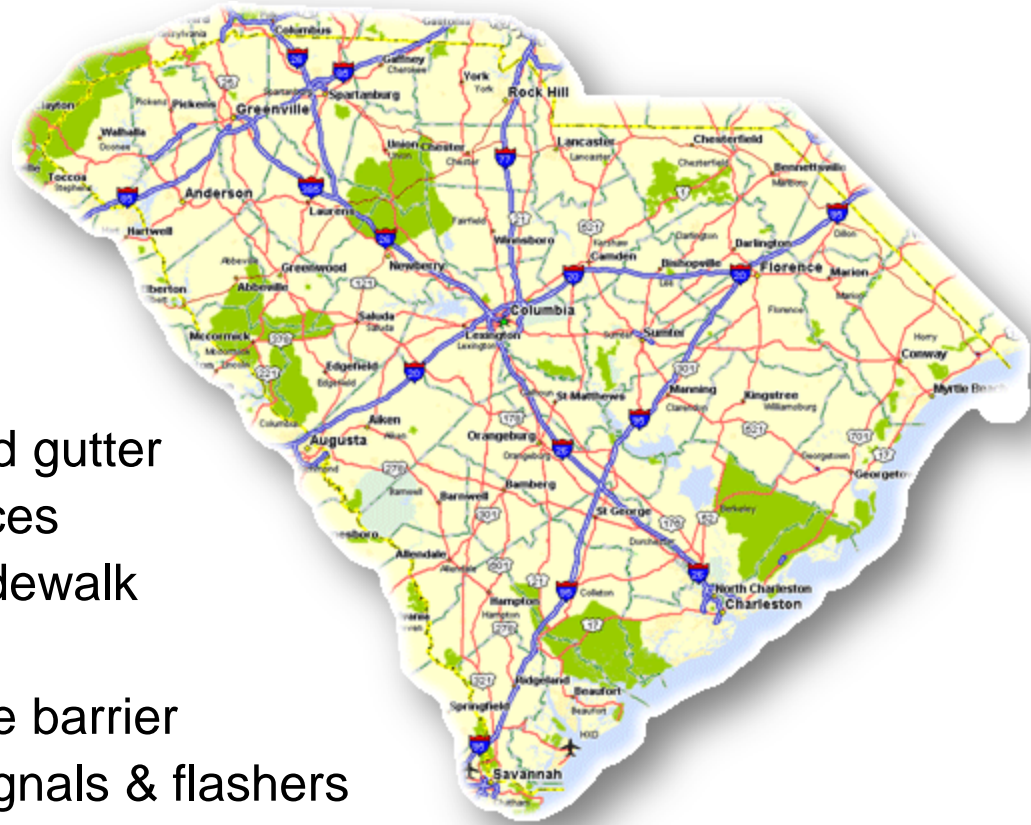
- Initiated a task-based analysis to determine workforce requirements, including a vehicle and equipment review
- Developed a Strategic Management Plan that will be complemented by an interactive dashboard
- Launched Statewide Multimodal Plan in partnership with State Ports Authority and Department of Commerce
- Worked diligently on education messages to build public trust and relationships with partners

The State Highway System



South Carolina Assets Under SCDOT Responsibility

Over 41,000 highway miles
Over 8,300 state-owned bridges
Over 643,000 traffic signs
9 Welcome Centers
19 Rest Areas
105,000 miles of ditches
128,000 roadside acres mowed
23,000,000 linear feet of curb and gutter
Over 1,140,000 driveway entrances
Over 20,000,000 linear feet of sidewalk
Over 1,700 miles of guardrail
Almost 500 miles of median cable barrier
Over 5,600 state-owned traffic signals & flashers





Examples of System Improvements in 2012

Completed 218 construction projects:

- 86 resurfacing projects totaling over 668 centerline miles
- 14 preservation projects totaling nearly 250 centerline miles
- 14 bridge replacements; 2 bridge retrofit/repairs

Sample of maintenance activities conducted:

Work Performed	Amount (Approximate)
Encroachment Permits Processed	11,100
Signs Produced	56,700
Signs Replaced/Maintained	276,000
Asphalt Repairs	176 tons
Shoulder/Ditch Work	46,000,000 linear feet
Mowing	172,000 acres
Litter Control	5,800,000 pounds
Driveways	7,700 installed/maintained
Pavement Markings	50,000,000 linear feet



System Mileage in S.C.

<i>Type of System</i>	<i>Mileage</i>	<i>Lane Miles</i>
Interstate	851	3,796
Primary	9,475	23,765
Federal Aid Secondary	10,265	21,058
Non Federal Aid Secondary	20,853	41,819
Total	41,444	90,438

**South Carolina maintains the 4th largest
Highway system in the nation**

Source: Road Inventory Management System (RIMS)
as of March 31, 2012





Grading SC Roads

SCDOT looks at two categories when grading roads...

Capacity:
bottlenecks, heavy traffic

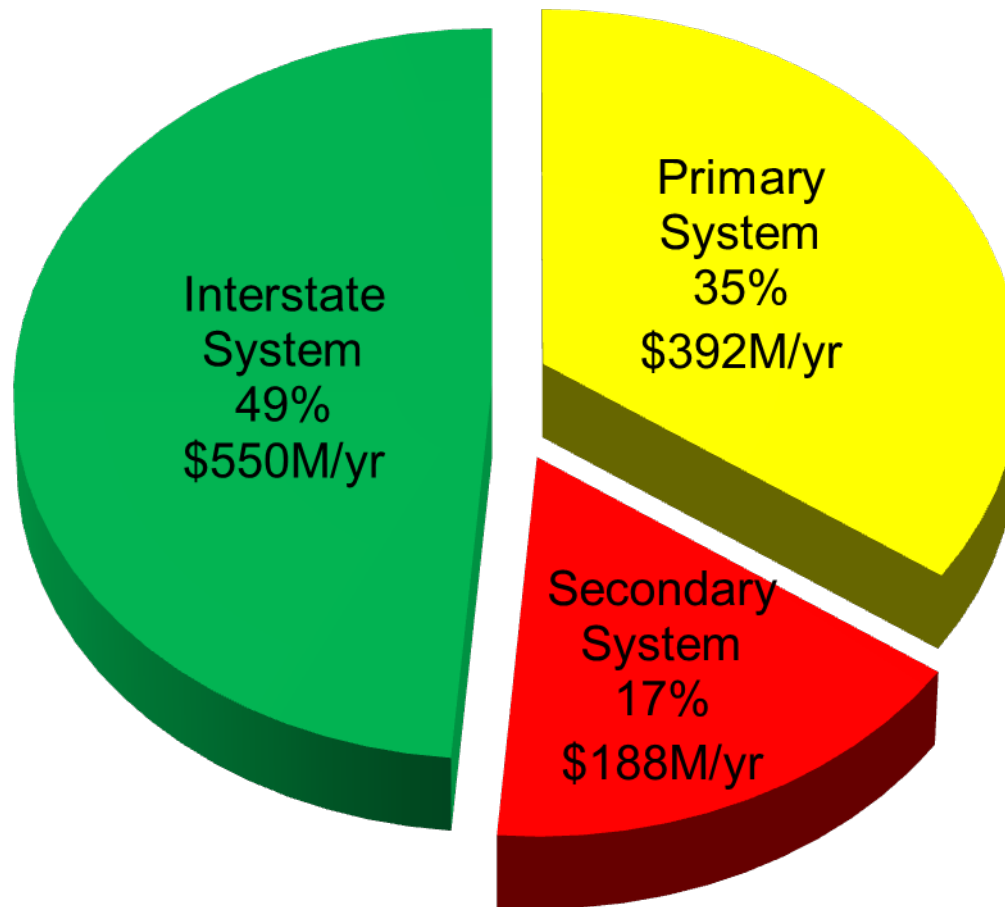


Pavement Condition:
condition of surface and road base





Statewide Capacity Needs



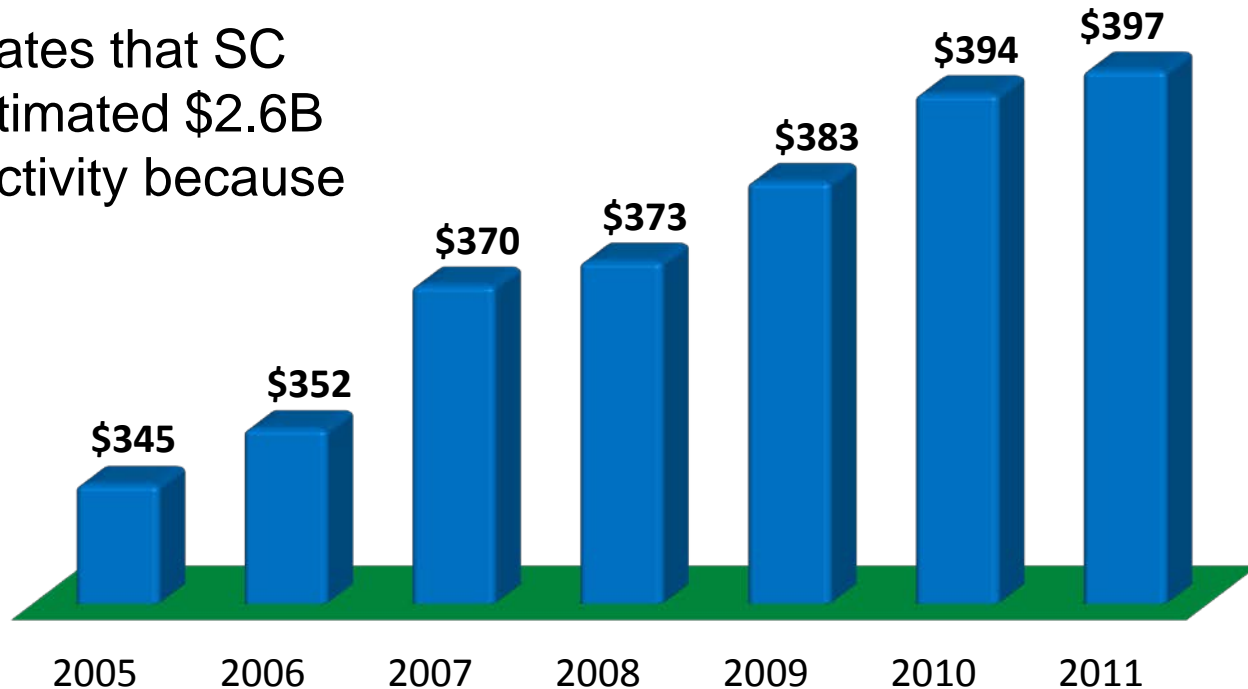
Capacity Needs In Centerline Miles

Interstate - 445
Primary - 471
Secondary - 2,577



Cost of Congestion

SCDOT estimates that SC has lost an estimated \$2.6B in economic activity because of congestion.



Examples of Heavily Congested Areas:

- I-26 @ Dorchester Rd
- I-385 @ SC-417/Exit 31
- I-26 @ Saint Andrews Rd/Exit 106
- US-17 @ SC-707/Socastee Blvd/Phillis Blvd

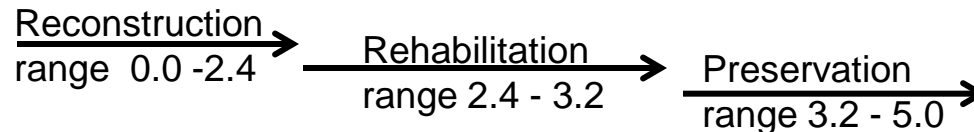




Grading Pavement Condition

- Grade for pavement condition is called a Pavement Quality Index (PQI)
- PQI is made up of two components – one that measures rutting and roughness and one that measures pavement distress (cracking, raveling)

Pavement Condition	Poor	Fair	Good
PQI Range	0.0 – 2.6	2.7 – 3.3	3.4 – 5.0



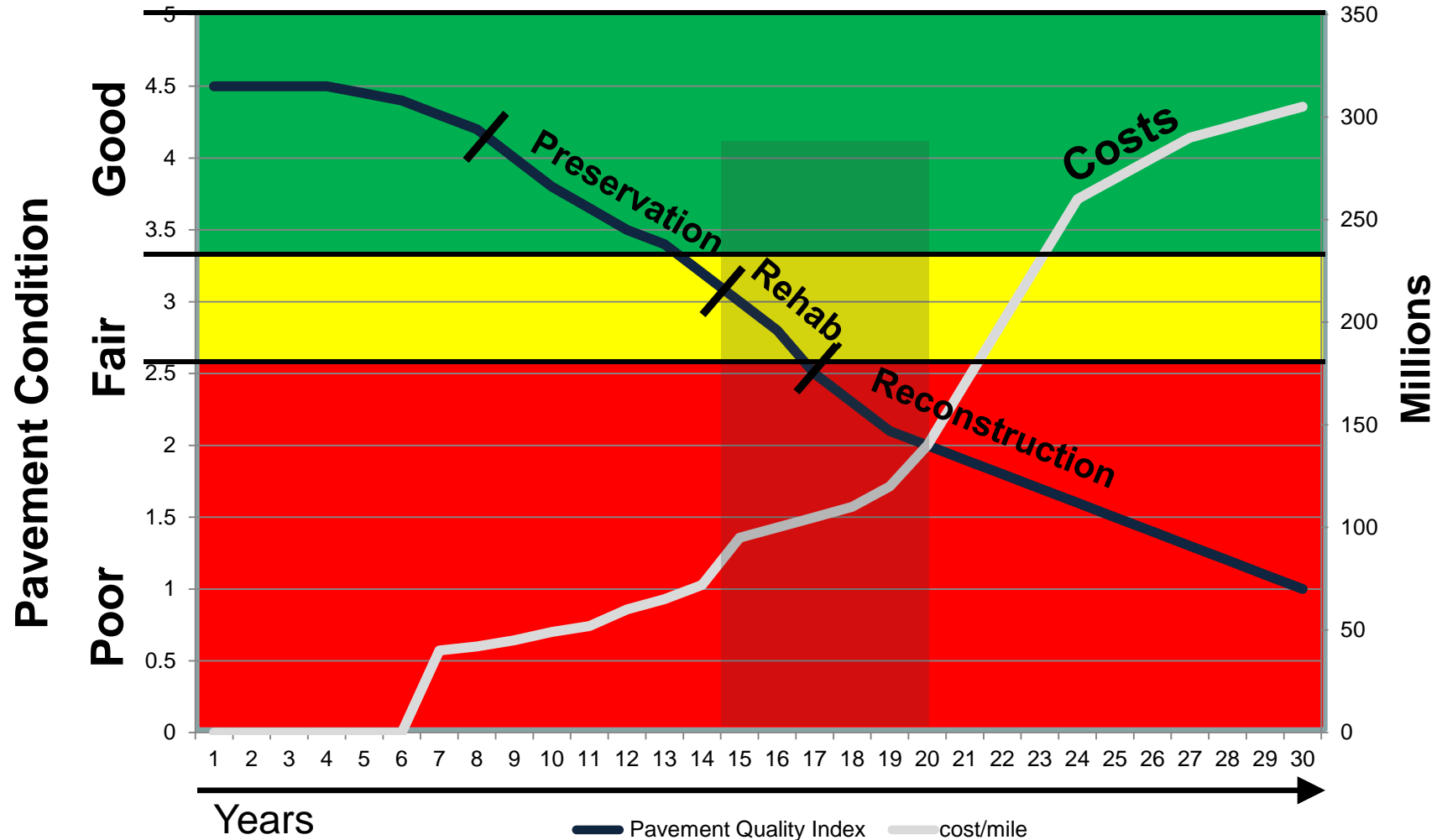
Reconstruction – usually involves the complete replacement of the pavement structure

Rehabilitation – structural enhancements to improve a pavement's load carrying capability – i.e. adding additional layers of asphalt

Preservation – low cost treatments such as chip seal, crack sealing, or ultra thin asphalt overlays placed at the right time to slow pavement deterioration

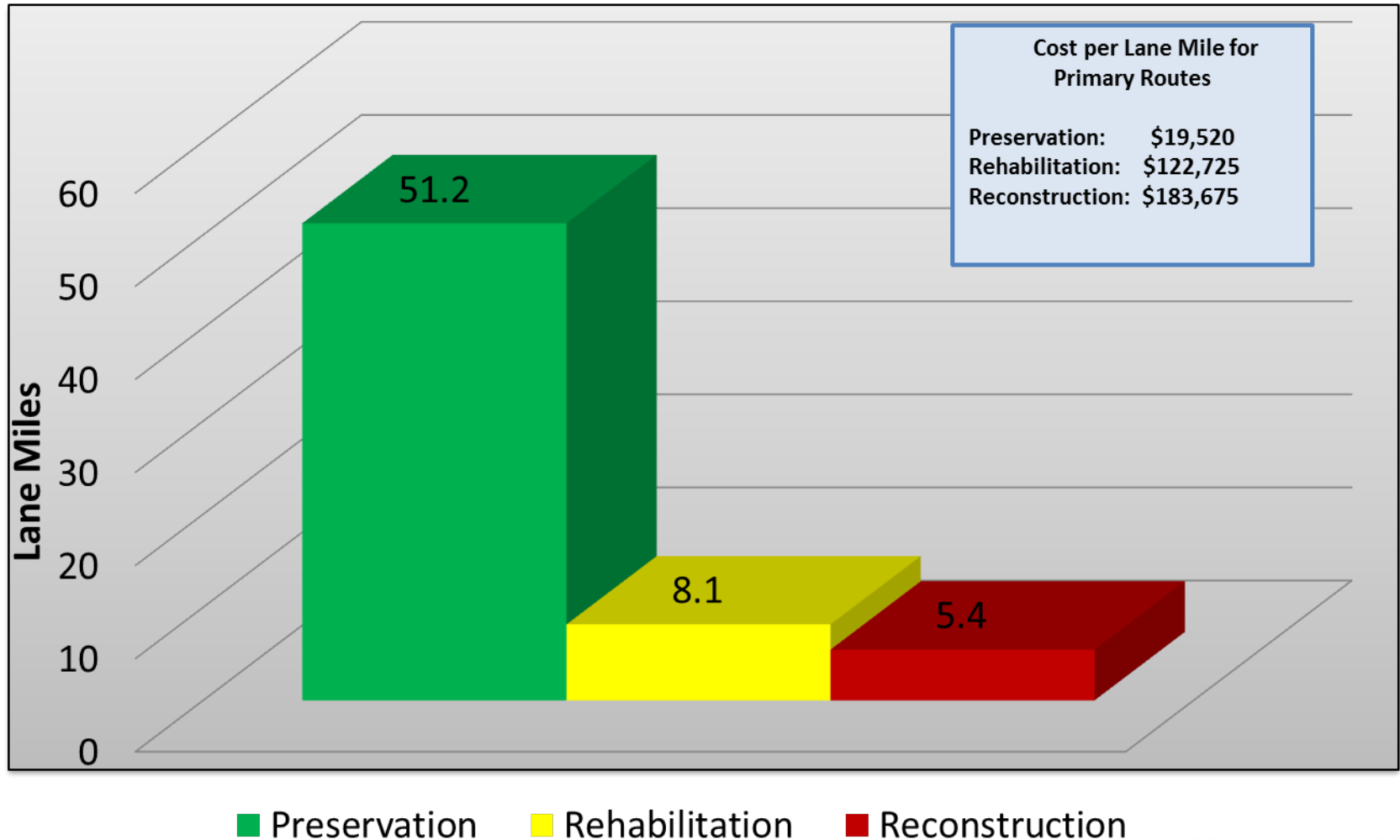


Cost vs. Pavement Condition





Stretching \$1M...Getting the Most For Your Money

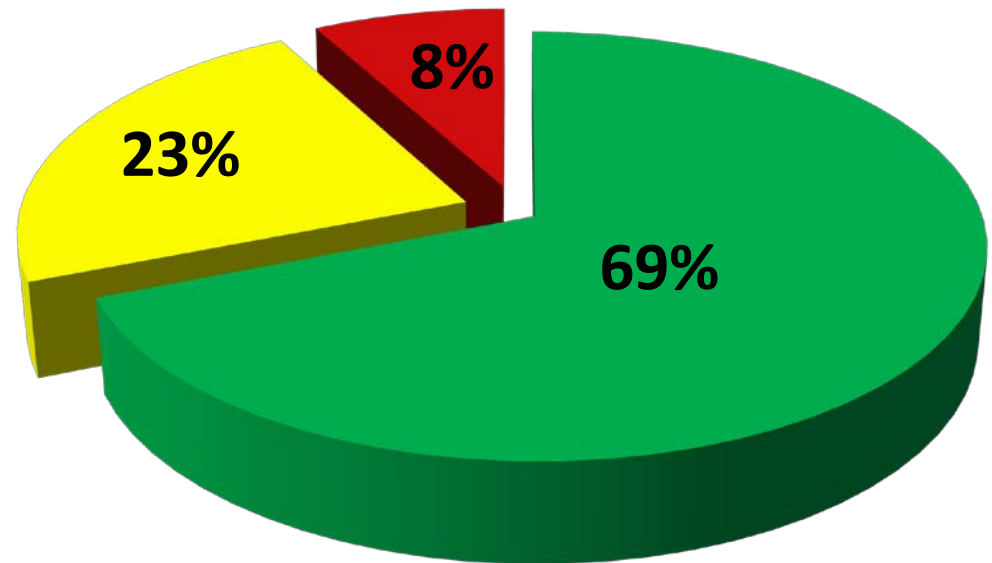




Interstate Pavement Condition

Total of 851 miles:

- Interstate system is over 50 years old
- Nearly 30% of all roadway travel in SC occurs on the interstates
- 113 miles of interstate are high usage, carrying over 70,000 vehicles per day
- Year 2030 capacity needs estimated to be an additional 400 lane miles
- Approximately 50 out of 271 interchanges will require reconstruction over the next 20 years
- All on the National Highway System
- Trucks account for nearly 13% of all Interstate traffic
- 14% of our interstate mileage experiences recurring congestion



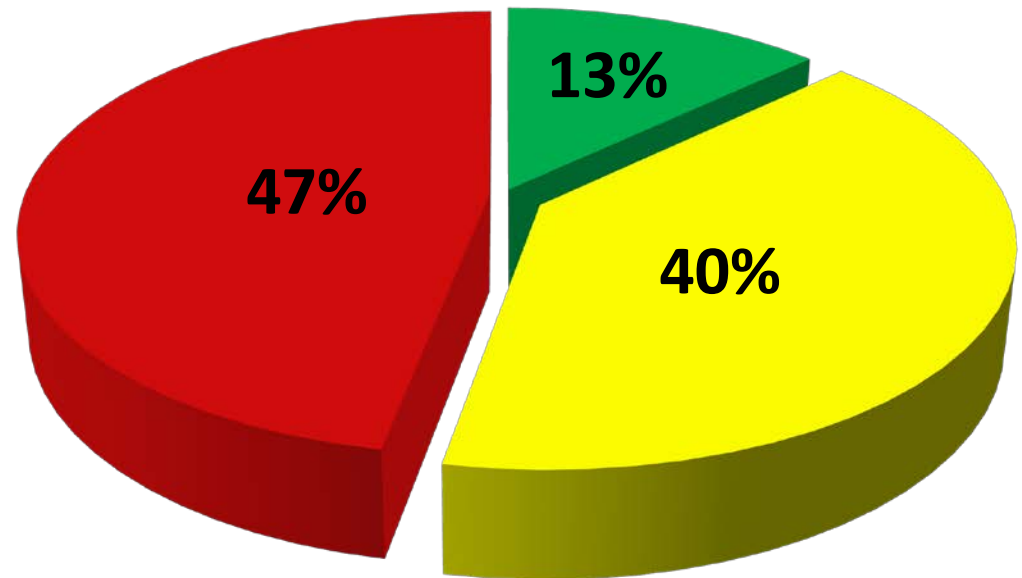
■ Good ■ Fair ■ Poor



Primary System Pavement Condition

Total of 9,475 miles:

- Comprised of US and SC routes
- Includes routes on the National Highway System (NHS)
- 45% of travel occurs on the primary system



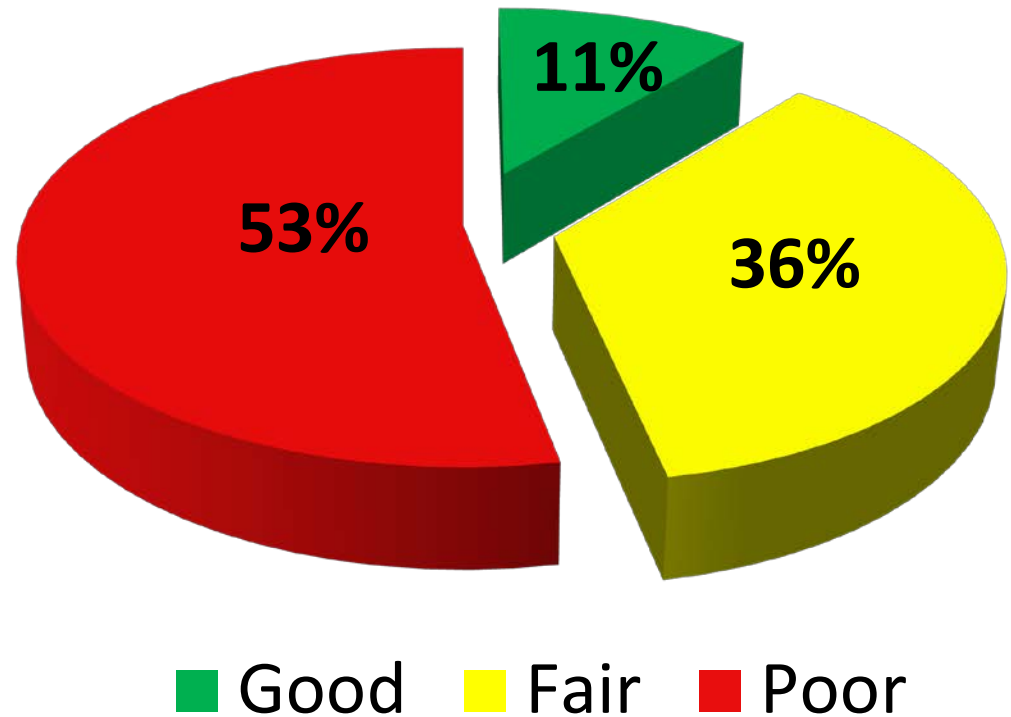
■ Good ■ Fair ■ Poor



Secondary System Pavement Condition

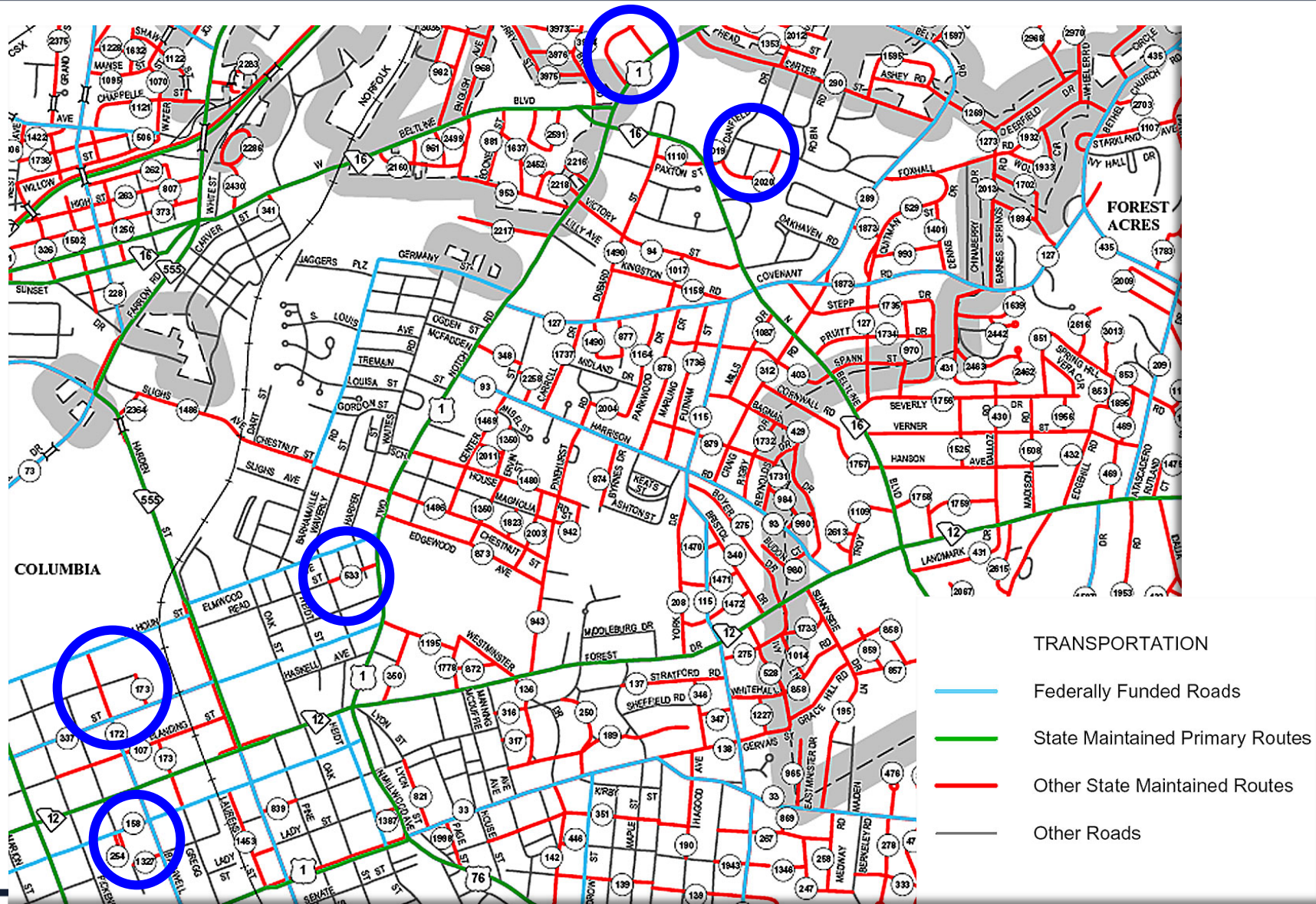
Total of 31,118 miles:

- 20,853 miles not eligible for federal funding
- 34% carry less than 200 vehicles per day
- Over 13,500 roads are less than ¼ mile in length
- Over 900 miles are unpaved





Segmentation - Reshaping the System





Grading Bridges

Bridge condition is graded by looking at 3 categories:

1. Deck (roadway)
2. Superstructure (part of bridge that supports the roadway)
3. Substructure (foundation, and supporting posts and piers)

Each category is given a condition rating on a scale of 0 to 9.

Bridge Rating	Poor	Fair	Good
Scoring Range	0 - 4	5	6 - 9



0 = Failed



**9 = Newly
Constructed**



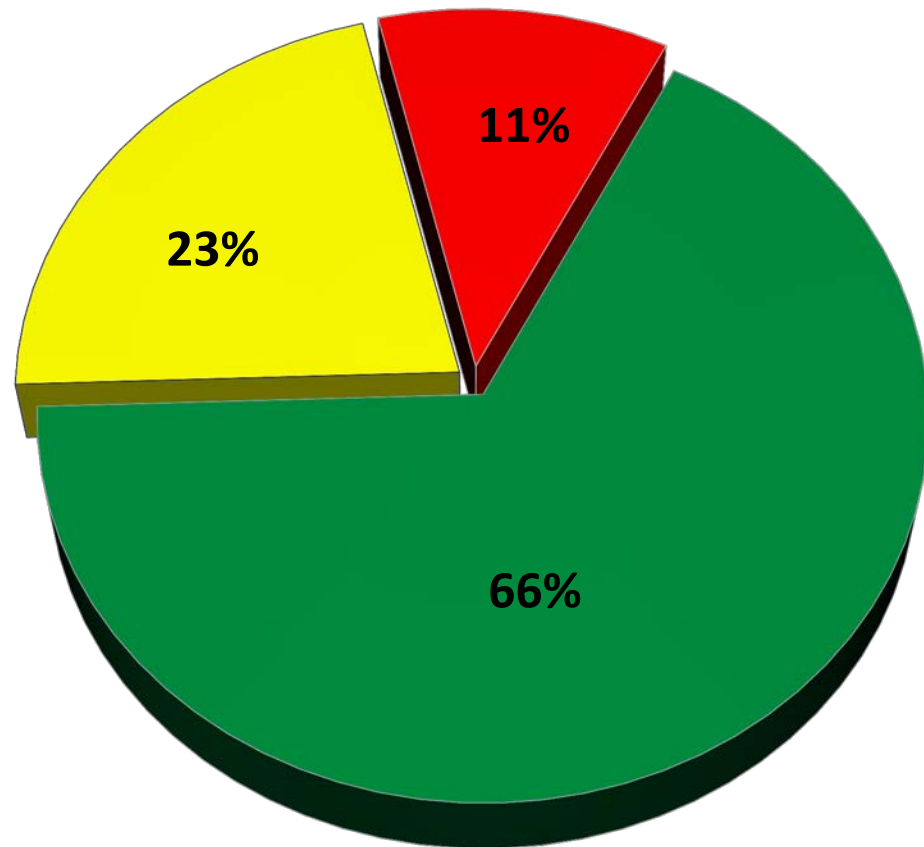
State Owned Bridge Conditions

Bridge Rating	Poor	Fair	Good
Scoring Range	0 - 4	5	6 - 9

- 8,383 total State-owned Bridges
- 1,663 Substandard
 - 886 Structurally Deficient*
 - 777 Functionally Obsolete**
- 420 Load Restricted
- 7 Closed

* *Structurally Deficient = deck, superstructure, or substructure rated in poor condition*

** *Functionally Obsolete = design is outdated*





SC's Safety Record

Traffic fatalities in SC did not decline in 2012, but were lower than the last five-year rolling average...

- Road departures – nearly 60% of all fatalities in SC involve vehicles leaving roadway and 1 out of every 4 fatal crashes in SC involves a vehicle striking a tree (more than 3 times the national average)
- Intersections – 1 out of every 5 fatal crashes occurs at an intersection
- DUI – 44% of all fatal crashes in SC are alcohol related (tied for first in nation)
- Speeding – over 40% of fatal crashes in SC are speed related (ranks in top 5 worst in nation)
- Seat belts – usage is up...however, 62% of all 2012 fatalities involved victims who had access to seatbelts but were not wearing them



Safety Summary

- SC roads and bridges are safe within the limits, restrictions, and controls posted
- We must educate all drivers, especially our youth, about safe and defensive driving
- SCDOT and Interagency Safety Council is committed to a program called “Toward Zero Deaths”
- MAP-21 safety performance standards will potentially impact our federal funds

The background of the slide is a dark blue, monochromatic image. It features a large, classical building with a prominent portico supported by many columns. In the foreground, there are several palm trees, some of which are partially obscured by the building. The overall tone is professional and institutional.

Financial Resources, Planning for the Future, and System Needs



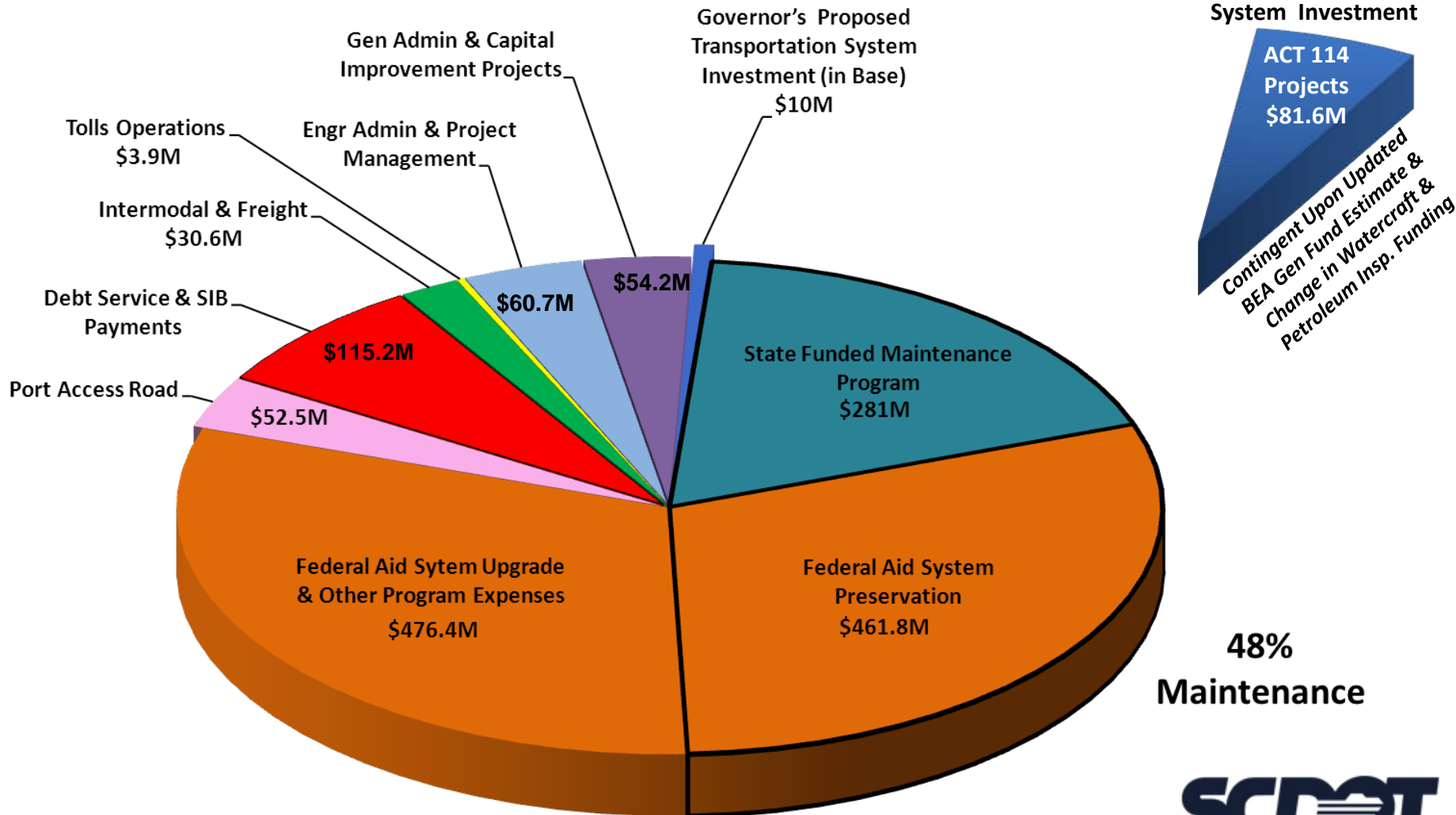
Federal Program MAP-21 Overview

- Two-year bill; funding levels steady
- Establishes a new performance-based focus on which future funding will be based
- Emphasis on the National Highway System (NHS)
- Requires Asset Management Plans for NHS and public transit systems
- Establishes minimum conditions for NHS bridges and pavement condition
- Establishes a National Freight Policy, including a National Freight Network by 2013, consisting of primary freight network and rural freight corridors



SFY 2013-14 Proposed Expenditures by Major Program Area

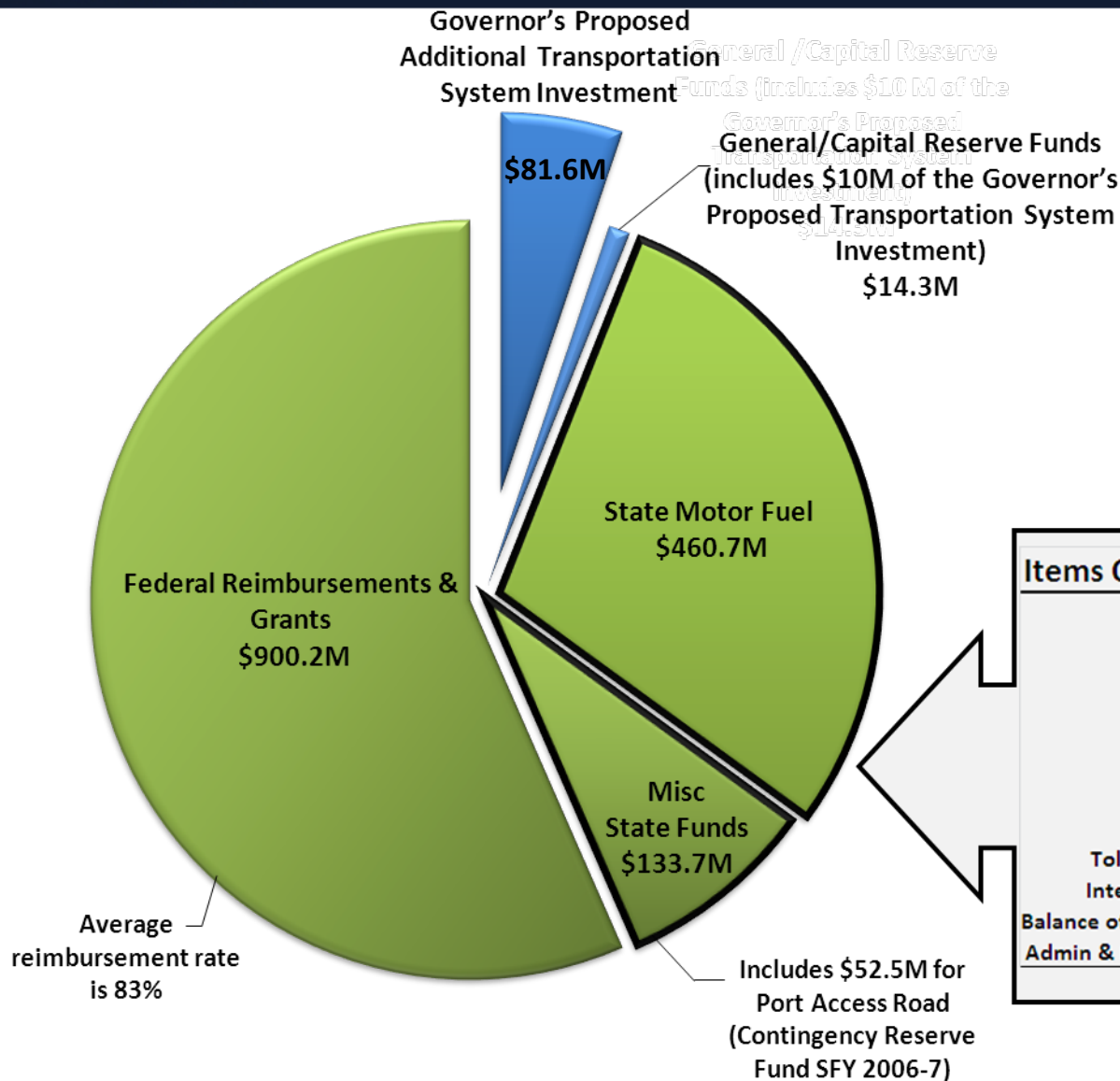
\$1.546 B (Agency Base)





Why State Dollars are Critical

SFY 2013-14
Estimated Revenues
\$1.509 B Agency Base



Items Competing Against Available State Funding

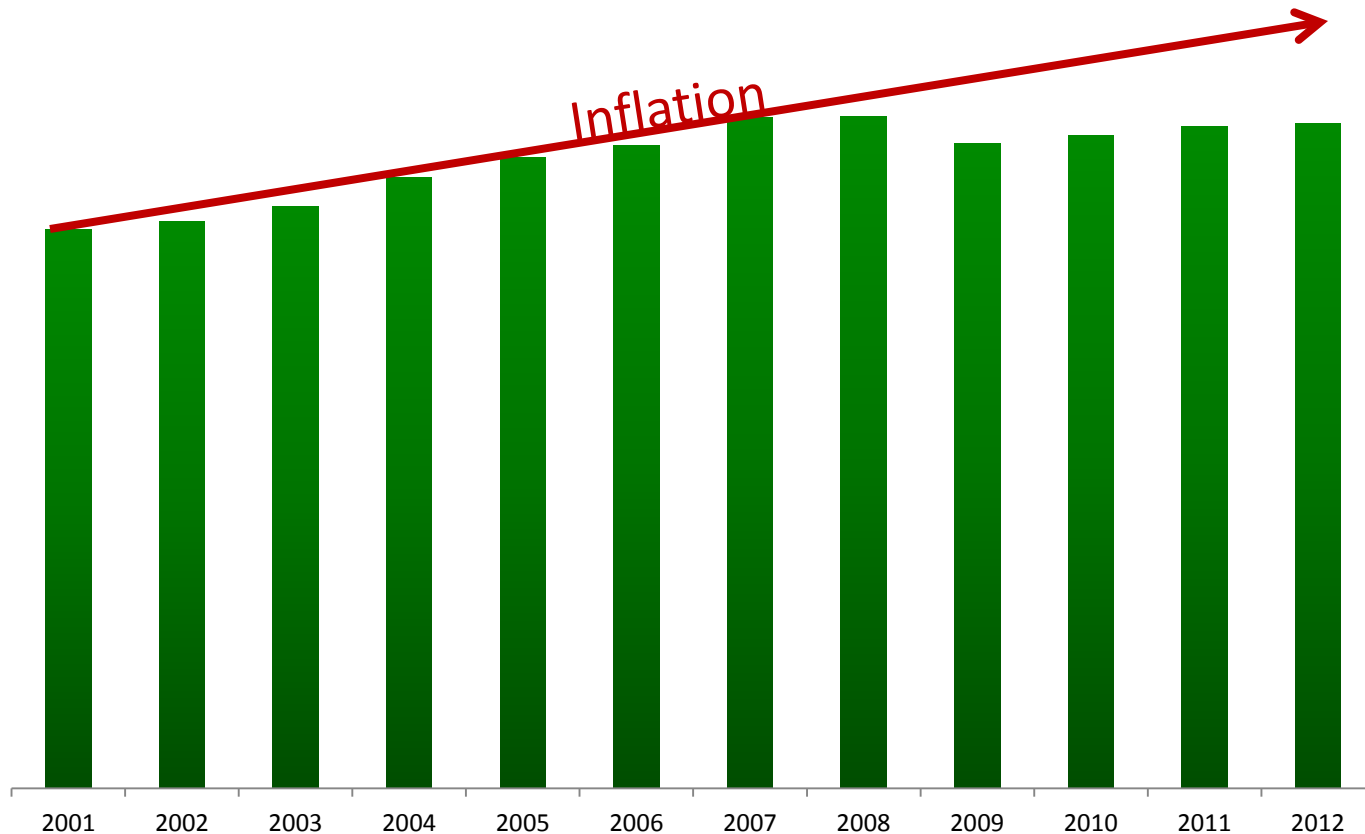
Match Requirement on Federal-Aid Program	\$ 147.7
State Infrastructure Bank 1 cent equivalent	\$ 25.5
CTC Donor Bonus	\$ 9.5
Insurance	\$ 7.0
IFTA	\$ 14.4
Port Access Road	\$ 52.5
Non-Federal Aid Program	\$ 38.8
Regular State Maintenance Operations	\$ 242.3
Toll Operations & Cross Island Parkway Debt Service	\$ 7.6
Intermodal & Freight (portion unreimbursed by FTA)	\$ 6.8
Balance of General Admin Expenses (excluding Cap Improv)	\$ 28.5
Admin & Project Mgmt (portion unreimbursed by FHWA)	\$ 60.7

Jan 10, 2013





State Motor Fuel Revenue Trend 2001-2012



*25% increase in SC population; motor fuel revenue flat
49% buying power since last change in 1987*

SC Motor Fuel User Fee *Actuals* SFY 2011-12

16.75¢ per gallon

Gross Collections (Gasoline & Diesel)

\$563,852,335

Dept of Revenue Deductions (Refunds,
Corrections, Tare Allowances, School Buses, US
Government Use)

(\$ 5,729,426)

DHEC SUPERB Fund
0.50¢ per gallon

(\$ 17,691,989)

Department of Agriculture
10% of 0.25¢

(\$ 885,224)

DNR Watercraft Fund
1% of the first 13¢ collected

(\$ 3,389,811)

County Transportation Fund
2.66¢ per gallon

(\$ 68,667,148)

County Transportation Fund
Donor Bonus

(\$ 9,500,000)

State Infrastructure Bank
1¢ Equivalent

(\$ 26,075,472)

IFTA Transfer

(\$ 13,060,627)

Remaining for SCDOT Operations

\$418,852,638

26%

Reduction





Examples of the Cost of Doing Business

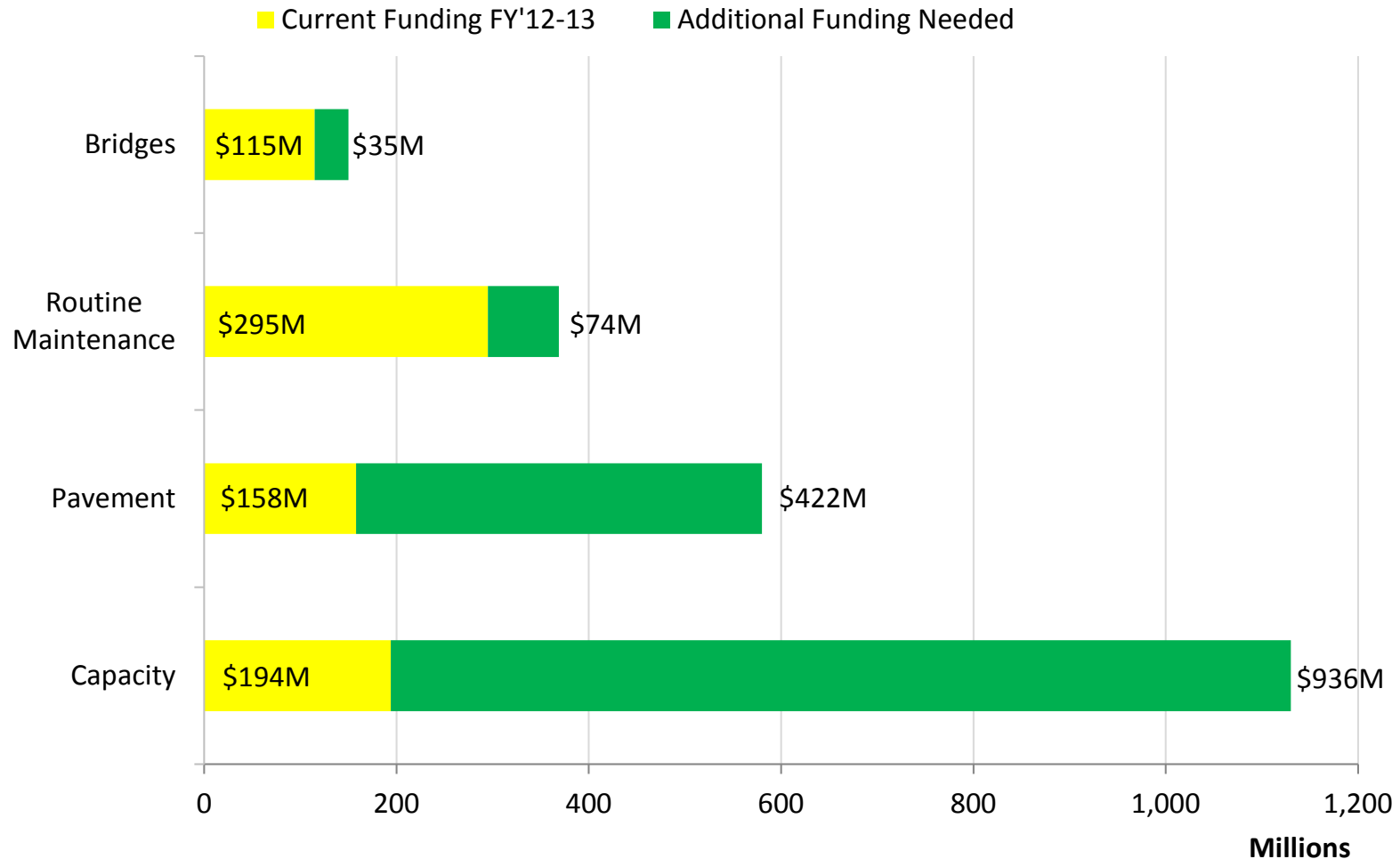
Item	Cost (Approximate)*
Adding New Lane Mile	\$2M/additional lane mile
New Bridge Deck	\$95-135/square foot
New Interchange on Interstate	\$45-55M in urban areas \$30-40M in rural areas
Modern Interstate to Interstate Interchange	\$200M
Traffic Signal w/Steel or Concrete Poles	\$80,000-100,000
Traffic Signal w/Mast Arms (excluding install)	\$150,000-180,000
Guardrail for Slopes	\$15-18/linear foot
Guardrail for Bridges/Signs/Columns	\$24-28/linear foot
Cable Median Barrier	\$5.50-6.50/linear foot
Interstate Overhead Sign	\$75,000-120,000 each
Overhead Changeable Sign	\$150,000-200,000 each

*Future costs may be affected by inflation and market dynamics



Funding “Good”

SCDOT Total Annual Funding Needs



- **SCDOT needs an additional \$1,467M per year for 20 years (total of \$29.3B) to bring our roads to a level of service of “Good”**
- **\$5M in state transit funding can leverage up to \$20M in federal funding**



SCDOT Commission Transportation Infrastructure Task Force Report

- The Commission sanctioned a task force to develop a verifiable, policy-based report
- Report concludes that the best policy for the state is twofold:
 - increase funding
 - diversify revenues
- Report provides funding options and warns of the consequences of inaction

Transportation Infrastructure & Economic Development



South Carolina Ports

“The state’s ports, rivers, rail and roads are essential arteries of commerce in South Carolina. Transportation, distribution and logistics depend on them, and they need to be maintained and expanded when necessary.”

SC Department of Commerce

“The Port of Charleston is the engine for economic development in South Carolina...the state is strong and getting stronger on the water side, but not keeping pace on the land side.”

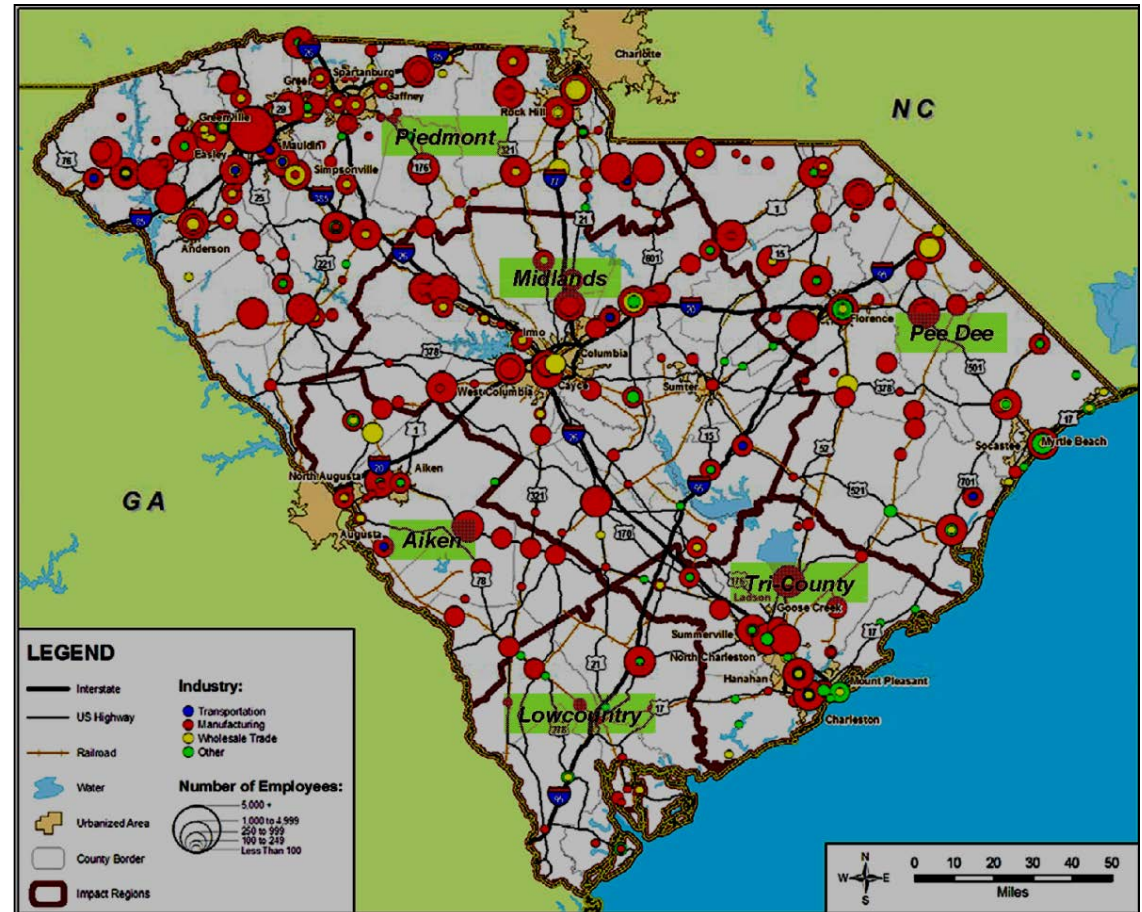
Robert J. St. Onge, Jr., SCDOT Secretary of Transportation



SC Industries Rely on the Port, Highway Connections

International trade and foreign investment are the very fabric of business and employment in South Carolina.

- **More than 700 companies** from every county import or export through our ports.
- **One in 11 S.C. jobs** is related to trade – growing as we leverage logistics, export and agricultural advantages.
- **Businesses of all sizes** – about half with fewer than 50 employees.





Statewide Multimodal Transportation Plan

- Statewide Multimodal Transportation Plan includes:
 - Interstate Plan
 - Strategic Corridor Plan
 - Public Transit and Coordination Plan
 - Freight Plan
 - Rail Plan
- Developed in partnership with the SC Department of Commerce and the State Ports Authority
- South Carolina's first comprehensive Freight Plan also being developed, in partnership with the New Carolina's Transportation, Distribution and Logistics Council and other partner groups



Infrastructure, Jobs, and Economic Development

*“America’s surface transportation network produces over \$4
in direct benefits for each \$1 in direct costs.”*

*(Healthy Returns: the Economic Impact of Public Investment in Surface
Transportation, March 2005)*

Infrastructure Defines the State!